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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,721	03/29/2004	Jang Hui Cho	46500-000613/US/COA	9356
30593 7590 04/07/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER				
BOOCTO, VINCENT F				
ART UNIT		PAPER NUMBER		
2158				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/810,721

Applicant(s)

CHO ET AL.

Examiner

Vincent F. Boccia

Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amend. Resp. IDS RCE 2/6/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/176,364.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-849)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/6/2009, 3/5/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

Continuation of Disposition of Claims: Claims pending in the application are

17, 19, 21, 23, 24, 26, 28, 29, 31, 32, 34, 36, 37, 39, 40, 42, 44, 45, 47, 48, 50, 52, 53, 55, 56, 58-60, 62, 63 and 65-76.

Continuation of Disposition of Claims: Claims rejected are

17, 19, 21, 23, 24, 26, 28, 29, 31, 32, 34, 36, 37, 39, 40, 42, 44, 45, 47, 48, 50, 52, 53, 55, 56, 58-60, 62, 63 and 65-76.

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DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2169.

Response to Arguments

1. Applicant's arguments filed 2/6/2009 on all amended claims have been fully considered but they are not persuasive.

{A} In re page 15 applicant states with respect to amended claims,

"A single address pointer in Yamane is not a flag whose value alone indicates if multiple reproduction paths are associated with the various angle interleave units. See Yamane, p. 36, l. 55 - p. 37, l. 46."

and

"Further, where Yamane does discuss a flag that indicates multiple reproduction paths with its multi-scene flag VOB_Fp of FIG. 27, this flag is **created only in the encoder/reproduction device and is** not present on the recording medium, let alone in a navigation unit thereof. See Yamane, p. 38, l. 48 - p. 39, l. 15; FIG. 51. Thus, Yamane does not teach the single flag indicating multiple reproduction paths in claim 17 amended.

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The response with respect to Figs. 27, 56, multi-scene flag and multi-angle flags, reads a Bit, representing in the VOB set #st of Fig. 27, shows Flags and reads on at least one Flag

- o Multi-Scene "VOB_Fp"
- o Multi-Angle "VOB_Fi"
- o Multi-Angle Seamless Switching Flag, "VOB_FsV"

in the Video Object, also see Page 44 and

But the examiner agrees with the interpretation.

The examiner directs attention to Flags of this type per Multi-scene periods, per scene periods, per Cell, which is deemed to read on the claims as amended, see

Pages 45-46, lines 52-, "step #2370 based on the multi-angle Flag VOB Fm setting (=1) declaring ... playback information declared ..".

"the VOB control information for each scene is declared ... to indicate an angle."

The areas cited are deemed to read on the claims wherein Flags are used to identify or indicate IF multi-scene or single scene indicators based on the Flag, as claimed.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the

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obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 17, 19, 21, 23-24, 26, 28-29, 31-32, 34, 36-37, 39-40, 42, 44-45, 47-48, 50, 52-53, 55-56, 58-60, 62-63, 65-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Okada (US 2002/0046328)/WO 00/42515} in view of Yamane et al. (EP 0 847 198 B1).

Regarding claims 17, 19, Okada meets the limitations associated with a record medium, recording & reproduction apparatus and methods having a data structure for managing reproduction of at least video data representing multiple reproduction paths,

A RECORD MEDIUM, comprising:

- a data area storing a transport stream of at least video data (Fig. 4, "TRANSPORT Packet of MPEG", "188 bytes", therefore an MPEG transport stream to be recorded to Fig. 5 DVD and Fig. 6, recording in logical zones, transferred to the DVD media thru a 1394 bus, "Isochronous Data Transfer", mode);
- the transport stream being divided transport packets (MPEG TRANSPORT STREAM IS IN PACKETS & SEE Fig. 4, "packets" or blocks, dummy packet, IEEE 1394);
- wherein each of the packets can be associated with one of the multiple paths (streams of data in packets, Fig. 14, multiple channels, recording packets); and
- the transport packets of each path being stored in separate physical domains of the data area from one another (such as shown in Fig. 37, zones 1, 6, 2 zone per/channel, channels 1, 3 and 4).

Okada discloses a navigation data (Figs. 41-44), including a map {by zone Fig. 37}, for each path (represented by channels 1, 2, 3, 4 etc.....) and position information (Fig. 42, has at least the leading address for each zone, while Fig. 37, shows zone recording for each channel), for the video of each path, wherein the navigation area includes navigation data item/items, the data items providing NAV. Info., for reproducing each path, having a list of at least the navigation data item/items (various data lists of Figs. 41-44 etc....., necessary to locate the digitally recorded video etc....., for reproduction), wherein in accord to Fig. 37 each path can be represented by a zone number or not, also the path is also defined by Fig. 44, stream Ids, and/or zones numbers and addresses, in accord to Fig. 42, leader addresses, wherein the Path defined by stream number Ids Fig. 41, or even zone numbers per/channel Fig. 37, represents a digital channel being a sub-channel of an RF channel received to the recording system (see SET TOP BOX, receiving a multi-channel stream (pages 1-2, MPEG 2, "programs of several hundred channels", "SET TOP BOX", Fig. 12)).

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Further regarding claims 17, 19 Okada fails to disclose on the medium, further comprising:

- o wherein in a navigation area having navigation units:

- o a first unit including one or more second units, controlling a reproduction order,

- o at least one second referencing more than one third unit/units,

- o wherein each third unit is a separate file of video data in the data area to reproduce, having Single Flag indicating either single path or multi-paths.

Yamane teaches a data structure as recited:

- o wherein in a navigation area having navigation units (VOB-B, VOB-C, VOB-D):

- o a first unit (header and packet/packets, navigation information pointing or linking an order of reproduction, VOB-B - A-ILVUb1) including one or more second units, controlling a reproduction order (see Pb1b, Pb1C, Pb1D, three),

- o at least one second (A-ILVUb2, has a header) referencing more than one third unit/units (Pb2b, Pb2c, Pb2D);

Amended Claim Language:

o Flags of this type per Multi-scene periods, per scene periods, per Cell, which is deemed to read on the claims as amended, see Pages 45-46, lines 52-, "step #2370 based on the multi-angle Flag VOB Fm setting (=1) declaring ... playback information declared ..". and "the VOB control information for each scene is declared ... to indicate an angle"

and

0 a navigation area storing a first navigation unit, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one second navigation

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unit referencing more than one third navigation unit and including an indicator for indicating that the corresponding at least one second navigation unit is provided for the multiple reproduction paths, each third navigation unit associated with a different one of the multiple reproduction paths and identifying ~~indicating~~ a separate file of video data in the data area to reproduce.

(see Figs. 46, 47, 49, 50, 76, 80)

o wherein each third unit is a separate file of video data in the data area to reproduce (VOB B, C, D are separate files or Video Objects).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Okada by providing navigation data generated for the multiple paths on to the medium and the recited data structures associated with the navigation information allowing traversal of different video streams recorded with the media by having the navigation information recorded thereto.

Providing the navigation information allows for transport of the media to other players, such as the conventional Table of Contents, which allows for players to play the medium only with the medium by having the navigation data for the recorded information on the medium, as taught by Yamane.

Claims 21, 23-24, 26, 28-29, 31-32, 34, 36-37, 39-40, 44-45, 47-48, 50, 52-53, 55-56, 58-60, 62-63 are deemed analyzed and discussed with respect to the last detailed action incorporated by reference, wherein the claims are related as being method and apparatus for recording to the medium, having the recited data structure and method and apparatus to reproduce the medium, deemed met and obvious in view of the art as applied.

Claim 42 is analyzed and discussed with respect to the claims above, but, further recites **a driver** for driving an optical recording device, controller controlling the driver (Fig. 12, shows a driver circuit 63, which is controlled by the "MPU For Disk Access Control, thru the Bus 65), deemed

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to read on the claimed driver limitation, for driving the optical device in recording as well as reproduction.

Regarding new claims 65-76, wherein the combination further provides for the data structures as recited including:

- o third Nav units being separate files of video data have one to one correspondence (Fig. 46, 47, 49, 50, 76 and/or 80);
- o position information (see addresses Fig. 20, of Nav Pack).

Contact Information

Any inquiry concerning this communication or earlier communications should be directed to the examiner of record Vincent F. Boccio whose telephone number is (571) 272-7373.

The examiner can normally be reached on between Monday-Thursday between (7:30 AM to 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali, can be reached on (571) 272-4105.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system:

"<http://portal.uspto.gov/external/portal/pair>"

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If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vincent F. Boccio/
Primary Examiner, Art Unit 2169